Subsurface Exploration

The geotechnical characteristics of subsurface soils can greatly affect the economics of a development. If subgrade soils are not suitable for proposed site improvements, soils correction must be undertaken to avoid structural failure. Information regarding subsurface soils is normally obtained through subsurface exploration.

Purpose: To investigate subsurface soil and water conditions through subsurface exploration and provide a report of findings including recommendations regarding earthwork, fill and compaction, foundation design, floor slab support, wall backfill, subgrade preparation, pavement design, and subsurface water control.

Requirements:

1. The Minnesota Housing Finance Agency (MHFA) requires subsurface exploration prior to Determining Feasibility on all new construction, building addition and/or substantial new pavement projects.
2. The Owner (Developer/Borrower) is responsible for retaining a licensed Geotechnical Engineer to perform subsurface exploration services.
3. The exploration method used shall be core borings in accordance with ASTM D 1586. The design Architect's licensed Structural and/or Civil Engineer shall determine quantities and location of core borings.
4. The Geotechnical Engineer shall prepare a report on subsurface findings. This report shall include boring logs along with written analysis and recommendations for earthwork, fill and compaction, foundation design, floor slab support, wall backfill, subgrade preparation, and pavement design, as well as, identify any special needs for subsurface water control.
5. Copies of the report shall be submitted to the Owner, Architect, Structural Engineer, Civil Engineer, and MHFA. Unusual, irregular, or suspect subsurface conditions may lead the MHFA to require additional subsurface investigation.